

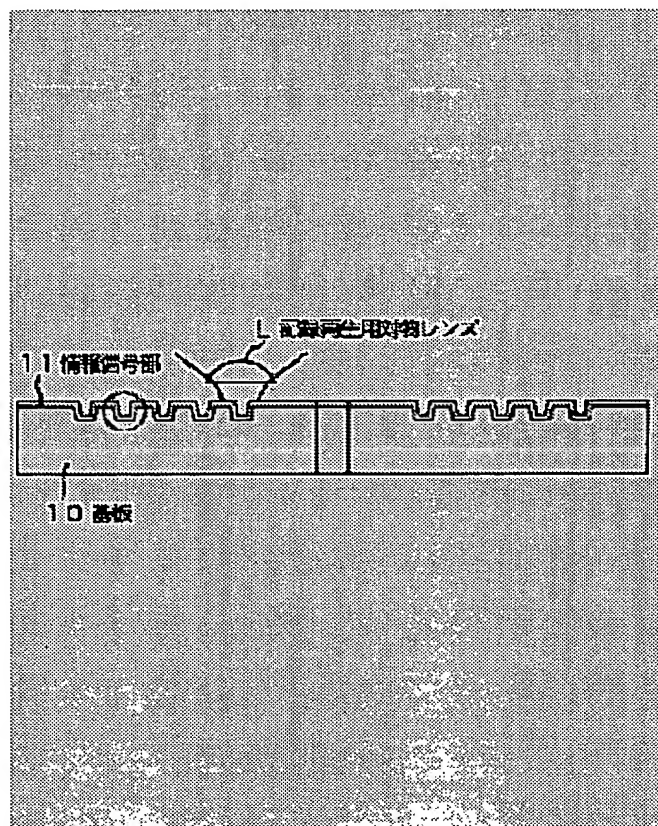
## OPTICAL RECORDING MEDIUM AND OPTICAL DISK DEVICE

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### Abstract of JP11031337

**PROBLEM TO BE SOLVED:** To suppress flawing on a transparent cover layer to be irradiated with light and the failure thereof, to assure reliability, to enable the dealing with higher NA and to make a capacity higher.  
**SOLUTION:** The one main surface side of a recording layer is provided with the transparent cover layer having a Young's modulus of  $\geq 70$  (GPa) and the recording and/or reproducing of information is executed by using an objective lens having NA of  $\geq 0.7$ . The thickness of the transparent cover layer is specified to  $\leq 150$  ( $\mu\text{m}$ ). The transparent cover layer is formed of a two-layered structure and the Young's modulus of the layer which is a front surface side is specified to  $\geq 150$  (GPa). The thickness of the layer is specified to 2 to 230 (nm). The front surface side of the transparent cover layer is formed of a material contg. at least one kind among  $\text{C}_{100-x}\text{H}_x$  ( $1(\text{atomic.}\%) < x < 45(\text{atomic.}\%)$ ),  $\text{Si}_3\text{N}_4$ ,  $\text{MgF}_2$ ,  $\text{Al}_2\text{O}_3$  and  $\text{SiO}_2$ . The thickness ( $t$ ) of the transparent cover layer of the region of an information signal part 11 is specified to  $t=3$  to 177 ( $\mu\text{m}$ ) and the irregular thickness  $\Delta t$  of the transparent cover layer is so determined that the relation  $\Delta t \leq \pm 5.26$  ( $\lambda / \text{NA} < 4 >$ ) ( $\mu\text{m}$ ) holds between NA and a wavelength  $\lambda$ .



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